Docket No. AUS920030556US1

ABSTRACT OF THE DISCLOSURE

METHOD AND APPARATUS FOR OPTIMIZING CODE EXECUTION USING ANNOTATED TRACE INFORMATION HAVING PERFORMANCE INDICATOR AND COUNTER INFORMATION

A method, apparatus, and computer instructions in a data processing system for processing instructions are provided. Instructions are received at a processor in the data processing system. If a selected indicator is associated with the instruction, counting of each event associated with the execution of the instruction is enabled. In some embodiments, a compiler may obtain performance profile data, annotated by output obtained from the use of the performance indicators and counters, along with the instructions/data of the computer program and use this information to optimize the manner by which the computer program is executed, instructions/data are stored, and the like. The optimizations may be to optimize the instruction paths, optimize the time spent in initial application load, the manner by which the cache and memory is utilized, and the like.